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SCIENCE ABSTRACTS.

SECTION A.—PHYSICS.

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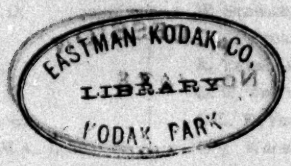

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SCIENCE ABSTRACTS

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LIST OF JOURNALS.

In 1904 Abstracts were made from the following Journals. An asterisk (*) indicates that the Journals so marked were received only occasionally.

Abbreviation.	Full Title.	Price.	Publishers, or Agents.
Acad. Sci. Cracovie, Bull.	Bulletin de l'Académie des Sciences de Cracovie	Single copy, 90 centimes; 8 francs per annum	Librairie de la Société anonyme polonaise, Cracovie
Acad. Sci. St. Pétersbourg, Bull.	Bulletin dé l'Académie Impériale des Sciences de St. Pétersbourg	Single copy, 2 marks, 50 pfennigs	Published by the Academy
Acad. Sci. St. Pétersbourg, Mém.	Mémoires de l'Académie Impériale des Sciences de St. Pétersbourg	Single copy, 3 marks ...	Published by the Academy
Accad. Lincei, Atti	Atti della R. Accademia dei Lincei, Roma	—	Lungara 10, Roma, Italy
Accad. Sci. Torino, Atti	Atti della R. Accademia delle Scienze di Torino	—	Published by the Academy
Akad. Wiss. Wien, Sitz. Ber.	Sitzungsberichte der Mathematisch-Naturwissenschaftlichen Classe der Kaiserlichen Akademie der Wissenschaften, Wien	Single copies, 2s. 4d. to 7s. 6d.	Carl Gerold's Sohn, Barbaragasse 2, Vienna
Amer. Acad., Proc.	Proceedings of the American Academy of Arts and Sciences	—	American Academy of Arts and Sciences, 1154, Boynton Street, Back Bay, Boston
Amer. Chem. Journ.	American Chemical Journal	—	Johns Hopkins Press, Baltimore, U.S.A.
Amer. Chem. Soc., Journ.	Journal of the American Chemical Society	$6 per annum	Chemical Publishing Co., Easton, Pa.
Amer. Electn.	American Electrician	Single copy, 10 cents; $1 per annum	120, Liberty Street, New York
*Amer. Electrochem. Soc., Trans.	Transactions of the American Electrochemical Society	$3 per volume	2910, North Sixteenth Street, Philadelphia, Pa.
Amer. Inst. Elect. Engin., Trans.	Transactions of the American Institute of Electrical Engineers	Single copy, 50 cents; $5 per annum	Published by the Institute, 95, Liberty Street, New York
Amer. Journ. Sci.	American Journal of Science	$6.40 per ann., post free	Tuttle, Morehouse & Taylor, 125, Temple Street, New Haven, Connecticut, U.S.A.
Amer. Phys. Soc., Bull	Bulletin of the American Physical Society	—	—
Amer. Soc. Mech. Engin., Trans.	Transactions of the American Society of Mechanical Engineers	—	Published by the Society, 12, West Thirty-first Street, New York
Amer. St. Rly. Assoc.	Report of the American Street Railway Association	—	2020 State Street, Chicago
American Telephone Journ.	The American Telephone Journal	—	116, Nassau Street, New York

These publications can be obtained from Messrs. Williams and Norgate, 14, Henrietta Street, W.C.

Abbreviation.	Full Title.	Price.	Publishers, or Agents.
Ann. d. Physik	Annalen der Physik	38 marks per annum	J. A. Barth, Rossplatz 17, Leipzig
Annal. Chim. Phys.	Annales de Chimie et de Physique	36 francs per annum	Gauthier-Villars, Quai des Grands-Augustins 55, Paris
Annal. Scientifiques de l'Univ. de Jassy	Annales Scientifiques de l'Université de Jassy	10 francs per volume	—
Archiv. Musée Teyler	Archives de la Musée Teyler	—	Les Heretiers Loojes, Haarlem, Holland
Archiv Post Tele.	Archiv für Post und Telegraphie	—	Published by the Reichs-Postamt, Berlin
Archives d'Él. Médicale	Archives d'Électricité Médicale	22 francs per annum	O. Doin, Place de l'Odéon 8, Paris
Archives Néerlandaises	Archives Néerlandaises des Sciences Exactes et Naturelles	6 fl. per volume	Martinus Nijhoff, La Haye, Holland
Archives des Sciences	Archives des Sciences Physiques et Naturelles, Genève	Single copy, 2.50 francs; 25 francs per annum	Bureau des Archives, 18 Pélisserie, Geneva
Assoc. Ing. Él. Liége, Bull.	Bulletin de l'Association des Ingénieurs-Electriciens, Liége	20 francs per annum	Rue Sainte-Gilles, 31, Liége, Belgium
Astrophys. Journ.	Astrophysical Journal	Single copy, 50 cents; 18s. per annum	The University of Chicago Press, Chicago, and W. Wesley & Son, 28, Essex Street, Strand, W.C.
Atti dell' Assoc. Elettr. Ital.	Atti della Associazione Elettrotecnica Italiana	20 lire per annum	Sede Centrale, 397, Corso Umberto 1, Rome
Automobile Club Journ.	Automobile Club Journal	Single copy, 6d.	119, Piccadilly, London, W.
Automobile Rev.	The Automobile Review and Automobile News	Single copy, 10 cents; $1 per annum	Baltimore Building, 21, Quincy Street, Chicago
Automotor Journ.	Automotor and Horseless Vehicle Journal	Single copy, 6d.; 7s. per annum	F. King & Co., Ltd., 44, St. Martin's Lane, London, W.C.
Beibl. Ann. d. Physik	Beiblätter zu den Annalen der Physik	—	J. A. Barth, Rossplatz 17, Leipzig
Ber. Deut. Chem. Gesell.	Berichte der Deutschen Chemischen Gesellschaft	—	R. Friedländer & Sohn, Carlstrasse 11, Berlin, N.W.
British Optical Journal	The British Optical Journal	Single copy, 6d.; 5s. per annum	Harp Alley, Farringdon Street, London, E.C.
Bull. Soc. Chim.	Bulletin de la Société Chimique de France	33 francs per annum	Masson & Cie, 120, Boulevard Saint-Germain, Paris
Bull. Soc. d'Encouragement	Bulletin de la Société d'Encouragement pour l'Industrie Nationale, with Revue de Metallurgie	36 francs per annum	Published by the Society, 44, Rue de Rennes, Paris
Bureau des Longitudes, Ann.	Annuaire publié par le Bureau des Longitudes	1 franc 50 centimes	Gauthier-Villars, Quai des Grands Augustins 55, Paris

These publications can be obtained from Messrs. Williams and Norgate, 14, Henrietta Street, W.C.

LIST OF JOURNALS—*continued.*

ABBREVIATION.	FULL TITLE.	PRICE.	PUBLISHERS, OR AGENTS.
Cambridge Phil. Soc., Proc.	Proceedings of the Cambridge Philosophical Society	Single copy, 2s. 6d.	C. J. Clay & Sons, Ave Maria Lane, E.C.
Cambridge Phil. Soc., Trans.	Transactions of the Cambridge Philosophical Society	Single copy, 7s. 6d.	C. J. Clay & Sons, Ave Maria Lane, E.C.
Canad. Elect. News	Canadian Electrical News	Single copy, 10 cents; $1 per annum	C. H. Mortimer Publishing Co., Ltd., Confederation Life Buildings, Toronto, Canada
Cassier	Cassier's Magazine	Single copy, 1s.; 12s. per annum, post free	33, Bedford Street, Strand, W.C.
Centralblatt Accumulatoren	Centralblatt für Accumulatoren- und Elementenkunde	3 marks 50 pf. per quarter	Dr. Franz Peters, Gross-Lichterfelde, West Bellevuestr. 40, Germany
Chem. Centralblatt	Chemisches Centralblatt	2 vols. yearly, 36 marks per vol.	R. Friedländer & Sohn, Carlstrasse 11, Berlin, N.W.
Chem. News	Chemical News and Journal of Science	Single copy, 4½d. post free	E. J. Davey, 16, Newcastle Street, Farringdon Street, E.C.
Chem. Soc., Journ.	Journal of the Chemical Society	——	Gurney & Jackson, 1, Paternoster Row, E.C.
Chem. Soc., Proc.	Proceedings of the Chemical Society	——	Gurney & Jackson, 1, Paternoster Row, E.C.
Coll. Sci. Engin., Mem. Kyōto	Kyōto Imperial University College of Science and Engineering, Memoirs	——	Kyōto Imperial University, Kyōto, Japan
Chem. Zeit.	Chemiker Zeitung	7 marks per quarter	Chemiker Zeitung, Cöthen, Anhalt
Comptes Rendus	Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences	34 francs per annum	Gauthier-Villars, Quai des Grands Augustins 55, Paris
Deutsch. Phys. Gesell., Verh.	Verhandlungen der Deutschen Physikalischen Gesellschaft	4 marks per annum	Fr. Vieweg u. Sohn, Verlagsbuchhandlung, Braunschweig, Germany
Dioptric Review	The Dioptric and Ophthalmometric Review	7s. 6d. per annum	17, Shaftesbury Avenue, London, W.
Écl. Électr.	L'Éclairage Électrique	60 francs per annum, post free	Ch. Cointe, 40, Rue des Écoles, Paris
Elect. Engin.	Electrical Engineer	Single copy, 3d.; 13s. per annum, post free	139 & 140, Salisbury Court, Fleet Street, E.C.
Elect. Mag.	Electrical Magazine	10s. 6d. per annum, post free	Electrical Publishing Co., Ltd., 4, Southampton Row, W.C.
Elect. Rev.	Electrical Review (London)	Single copy, 4d.; 19s. 6d. per annum, post free	Alabaster, Gatehouse & Co., 4, Ludgate Hill, E.C.

These publications can be obtained from Messrs. WILLIAMS and NORGATE, 14, Henrietta Street, W.C.

Abbreviation.	Full Title.	Price.	Publishers, or Agents.
Elect. Rev. N.Y.	Electrical Review (New York)	Single copy, 10 cents; $5 per annum	Times Buildings, 41, Park Row, New York, and H. W. Hall, 42, Old Broad Street, London, E.C.
Electrical Times	The Electrical Times and Lighting	Single copy, 2d.; 10s. 6d. per annum	8, Bream's Buildings, Chancery Lane, London, E.C.
Elect. World and Engineer	Electrical World and Engineer	Single copy, 10 cents; $6 per annum	120, Liberty Street, New York, & Hastings House, Norfolk Street, Strand, London
Electrician	The Electrician	Single copy, 6d.; 26s. per annum	Salisbury Court, Fleet Street, E.C.
Électricien	L'Électricien	Single copy, 50 centimes; 25 francs per annum	L. de Soye et Fils, Rue des Fossés-St.-Jacques 18, Paris
Electricity, N.Y.	Electricity (New York)	Single copy, 10 cents; $4.50 per annum	136, Liberty Street, New York
Electrochem. Ind., N.Y.	Electrochemical Industry, New York	Single copy, 25 cents; $2 per annum	Electrochemical Publishing Company, 114–118, Liberty Street, New York City
Electro-Chemist	The Electro-Chemist and Metallurgist	Single copy, 6d.; 7s. 6d. per annum, post free	Sherard Cowper-Coles & Co., Ltd., 82, Victoria Street, Westminster
Elekt. Bahnen	Elektrische Bahnen	18 marks per annum	R. Oldenbourg, Munich
Elekt. Runds.	Elektrotechnische Rundschau, *now* Elektrische und Polytechnische Rundschau	12 marks per annum	10, Kaiserstrasse, Frankfurt a. M., Germany
Elektrochem. Zeitschr.	Elektrochemische Zeitschrift	18 marks 40 pfg. per annum	M. Krayn, Kurfürstenstrasse, 11, Berlin, W. 57
Elektrotechn. Zeitschr.	Elektrotechnische Zeitschrift	25s. per annum	J. Springer, 24, Monbijouplatz, 3, Berlin, N.
Elettricista, Rome	L'Elettricista (Rome)	12s. per annum	Via Cavour 222–226, Rome
Elettricità, Milan	L'Elettricità	Single copy, 50 cents; 15 lire per annum	Via Boccaccio 5, Milan, Italy
Eng. and Mining Journ.	The Engineering and Mining Journal	$5 per annum	261, Broadway, New York
Engineer	The Engineer (London)	Single copy, 6½d. post free; £1 9s. per ann., post free	33, Norfolk Street, Strand, W.C.
Engineering	Engineering	Single copy, 6½d. post free; £1 9s. 2d. per annum, post free	35 & 36, Bedford Street, Strand, W.C.
Eng. Club, Phil., Proc.	Proceedings of the Engineers' Club of Philadelphia	$2 per volume	1122, Girard Street, Philadelphia
Eng. Mag.	The Engineering Magazine	Single copy, 1s.; 12s. 6d. per annum, post free	222–225, Strand, London, W.C.

These publications can be obtained from Messrs. Williams and Norgate, 14, Henrietta Street, W.C.

LIST OF JOURNALS—*continued.*

ABBREVIATION.	FULL TITLE.	PRICE.	PUBLISHERS, OR AGENTS.
Eng. News	Engineering News	Single copy, 15 cents; $6.31 per annum	220, Broadway, New York, and Effingham House, 1, Arundel Street, Strand, London
Eng. Record	The Engineering Record	Single copy, 12 cents; $6 per annum	100, William Street, New York
Eng. Rev.	Engineering Review	Single copy, 6d.; 9s. per annum, post free	104, High Holborn, W.C.
France Automobile	La France Automobile	Single copy, 50 cents; 20 francs per annum	68, Avenue de la Grande-Armée, Paris
Frank. Inst., Journ.	Journal of the Franklin Institute	Single copy, 50 cents; $5 per annum	Franklin Institute, Philadelphia
Gasmotorentechnik	Die Gasmotorentechnik	11 marks per annum	Calvary & Co., Neue Wilhelmstrasse 1, Berlin, N.W.
Gazzetta Chim. Ital.	Gazzetta della Societa Chimica Italiana	44 lire per annum	Published by the Society, Via Panisperna 89, Rome
Génie Civil	Génie Civil	Single copy, 1 franc; 45 francs per annum	Rue de la Chaussée d'Antin 6, Paris
Gesell. Wiss. Göttingen, Nachr. Math.-Phys. Klasse	Nachrichten der Gesellschaft der Wissenschaften zu Göttingen, Mathematisch-physikalische Klasse	——	Lüder Horstmann, Göttingen, Germany
Horseless Age	The Horseless Age	Single copy, 10 cents; $4 per annum	E. P. Ingersoll, 150, Nassau Street, New York
Ind. Élect.	L'Industrie Électrique	Single copy, 1 franc; 26 francs per annum	A. Lahure, 9, Rue de Fleurus, Paris
Ind. Électrochim.	L'Industrie Électrochimique	Single copy, 60 centimes; 8 francs per annum	H. Becker, 5, Rue Guy-Patin, Paris
Inst. Civ. Engin., Proc.	Proceedings of the Institution of Civil Engineers	——	Published by the Institution, Great George Street, London, S.W.
Inst. Elect. Engin., Journ.	Journal of the Institution of Electrical Engineers	Single copy varies from 1s. 6d. to 7s. 6d.	E. & F. N. Spon, Ltd., 57, Haymarket, S.W.
Inst. Engin. and Shipbuilders, Trans.	Transactions of the Institution of Engineers and Shipbuilders in Scotland	——	Published by the Institution, 207, Bath Street, Glasgow
Inst. Mech. Engin., Proc.	Proceedings of the Institution of Mechanical Engineers		Published by the Institution, Storey's Gate, St. James's Park, London, S.W.

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Abbreviation.	Full Title.	Price.	Publishers, or Agents.
Inst. Naval Architects, Trans.	Transactions of the Institution of Naval Architects	——	H. Sotheran & Co., 140, Strand, London, W.C.
Iron and Steel Inst., Journ.	Journal of the Iron and Steel Institute	32s. per annum	E. & F. N. Spon, Ltd., 57, Haymarket, S.W.
Iron and Steel Mag.	Iron and Steel Magazine (formerly The Metallographist)	Single copy, 50 cents; $6 per annum	Boston Testing Laboratories, 446, Tremont Street, Boston, U.S.A.
Journal of Electricity, S. F.	Journal of Electricity, Power, and Gas (San Francisco)	Single copy varies from 25 to 50 cents	144, Union Square Avenue, San Francisco
Journ. Phys. Chem.	Journal of Physical Chemistry	$4 per annum	Published at Cornell University, U.S.A.
Journ. de Physique	Journal de Physique	15 fr. per ann., post free	11, Rue Rataud, Paris
Journ. Prakt. Chemie	Journal für Praktische Chemie	24 marks per annum	J. A. Barth, Rossplatz 17, Leipzig
Journ. Télégraph.	Journal Télégraphique	Single copy, 50 centimes; 5 francs per annum	Bureau International des Administrations Télégraphiques, Berne
Jurn. Russk. Fisik.-Chimičesk. Obščestva	Jurnal Russkago Fisiko-Chimičeskago Obščestva	9 roubles per annum	Published by the Russian Physico-Chemical Society, Imperial University, St. Petersburg
Kais. Akad. München.	Kaiserliche Bayerische Academie von Wissenschaften, Sitzungsberichte (Mathematisch-Physikalische Klasse)	——	Published by the Academy
Kongl. Danske Vidensk. Selsk. Kjöbenhavn, Förh.	Öfversigt over Det Kongelige Danske Videnskabernes Selskabs Förhandlinger	5 kr. per annum	Andr. F. Höst og Sön, Copenhagen
Konink. Akad. Wetensch. Amsterdam, Versl.	Verslagen van de gewone vergaderingen der Wis-en Natuur-kundige afdeeling der Koninklijke Akademie van Wetenschappen te Amsterdam	——	Published by the Academy
Konink. Acad. Wetensch. Amsterdam, Proc.	——	——	——
Liebig's Ann. d. Chemie	Liebig's Annalen der Chemie	24 marks per annum	C. F. Winter, Leipzig
Locomotion Automobile	La Locomotion Automobile	Single copy, 5 centimes; 20 francs per annum	Place de la Madeleine, Rue Chauveau-Lagarde 4, Paris
London County Council, Report	London County Council Report	Single copy, 1s.	P. S. King & Son, 2 & 4, Great Smith Street, Victoria Street, Westminster, S.W.
Manchester Lit. and Phil. Soc., Mem.	Memoirs of the Manchester Literary and Philosophical Society	Single copy, 2s.	36, George Street, Manchester
Mathematical and Physical Soc. Tokyo	Tōkyō Sūgaku-Buturigakkwai, Hōkoku	——	——

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LIST OF JOURNALS—*continued.*

ABBREVIATION.	FULL TITLE.	PRICE.	PUBLISHERS, OR AGENTS.
Mech. Eng.	The Mechanical Engineer	Single copy, 6d.; 20s. per annum, post free	53, New Bailey Street, Manchester
Metallurgie	Metallurgie	4½ marks per quarter	W. Knapp, Halle a. S., Germany
Monthly Weather Rev.	The Monthly Weather Review	Single copy, 10 cents	Published by the U.S. Weather Bureau, Washington
Motor Car Journ.	The Motor Car Journal	Single copy, 1d.; 6s. 6d. per annum	27–33, Charing Cross Road, W.C.
Motorwagen	Der Motorwagen	16 marks per annum	M. Krayn, 86 Steglitzerstrasse, Berlin, W., 35
N. Cimento	Nuovo Cimento	20 lire per annum	A. Lavacchini, Via Sino Capponi 3, Florence
Nature	Nature	Single copy, 6d.	Macmillan & Co., Ltd., St. Martin's Street, London, W.C.
Nova Scotian Inst., Trans.	Transactions of the Nova Scotian Institute of Science	——	Published by the Institute, Halifax, Nova Scotia
Öfvers. Kongl. Vet. Akad. Stockholm, Förh.	Öfversigt af Kongliga Vetenskaps-Akademiens Förhandlingar, Stockholm	——	Published by the Academy
Page's Weekly	Page's Weekly (formerly Page's Magazine)	Single copy, 6d.	Clun House, Surrey Street, Strand, W.C.
Phil. Mag.	London, Edinburgh, & Dublin Philosophical Magazine	2s. 6d. per month, occasionally 5s.	Taylor & Francis, Red Lion Court, Fleet Street, E.C.
Photographic Journ.	The Photographic Journal	Single copy, 1s.	Messrs. Harrison & Sons, 59, Pall Mall, S.W.
Phys. Rev.	Physical Review	Single copy, 50 cents; $4 per annum	Macmillan & Co., Ltd., London and New York
Phys. Soc., Proc.	Physical Society of London, Proceedings	——	Published by the Society
Phys. Tech. Reichsanstalt, Wiss. Abh.	Wissenschaftliche Abhandlungen der Physikalisch-Technischen Reichsanstalt	30 marks per volume	J. Springer, Verlagsbuchhandlung, Monbijouplatz 3, Berlin, N.
Phys. Zeitschr.	Physikalische Zeitschrift	29 mks. per ann., post free	S. Hirzel, Königstrasse 2, Leipzig
Power, N.Y.	Power (New York)	$2 per annum	Hill Pub. Co., World Bldg., New York, and 6, Bouverie Street, Fleet Street, E.C.
Preuss. Akad. Wiss. Berlin, Sitz. Ber.	Sitzungsberichte der Preussischen Akademie der Wissenschaften zu Berlin	12 marks per annum	Königliche Akademie der Wissenschaften, Berlin
Railroad Gazette	Railroad Gazette	$6 per ann., post free	32, Park Place, New York
Rec. Trav. Chim.	Receuil de Travaux Chimiques des Pays-Bas et de la Belgique	6 fl. per annum	A. W. Sijthoff, Leiden
Revue de l'El. Berne	Revue de L'Electricité, Berne	8 francs per annum	Place de l'Ours 29, Berne

These publications can be obtained from Messrs. WILLIAMS and NORGATE, 14, Henrietta Street, W.C.

Abbreviation.	Full Title.	Price.	Publishers, or Agents.
Rev. Electrique	Revue Électrique	Single copy, 1 fr. 50 c.; 30 francs per annum...	Gauthier-Villars Quai des Grands Augustins 55, Paris
Revue Int. d'Électrothérapie	Revue Internationale d'Electrothérapie et de Radiothérapie	Single copy, 50 centimes; 6 francs per annum	3, Place du Théâtre Français, Paris
Revue Scientif.	Revue Scientifique	Single copy, 60 centimes; 35 francs per annum	41 bis, Rue de Châteaudun, Paris, and T. F. Unwin, 11, Paternoster Square, E.C.
Rivista Sci.-Industriale	Rivista Scientifico-Industriale	12 lire per annum	2, Lungarno della Zecca, Florence, Italy
Roentgen Ray, Archives	Archives of the Roentgen Ray	Single copy, 2s.	Reman, Ltd., 129, Shaftesbury Avenue, W.C.
Roentgen Soc., Journ.	Journal of the Roentgen Society	16s. per annum	Published by the Society, 19, Hanover Square, W.
*Royal Astron. Society, Monthly Notices	Monthly Notices of the Royal Astronomical Society	10s. per annum	Published by the Society, Burlington House, London, W.
Roy. Dublin Soc., Proc.	Scientific Proceedings of the Royal Dublin Society	Single copy, 6d.	Published by the Society, Leinster House, Dublin
Roy. Dublin Soc., Trans.	Transactions of the Royal Dublin Society	——	Published by the Society, Leinster House, Dublin
Roy. Inst., Proc.	Proceedings of the Royal Institution of Great Britain	——	Published by the Institution, 21, Albemarle Street, W.
Roy. Soc., Edinburgh, Proc.	Proceedings of the Royal Society of Edinburgh	Varies for separate papers	Messrs. R. Grant & Son, 107, Princes Street, Edinburgh, and Messrs. Williams & Norgate, 14, Henrietta Street, Covent Garden, London
Roy. Soc., Edinburgh, Trans.	Transactions of the Royal Society of Edinburgh	Varies for separate papers	Messrs. R. Grant & Son, 107, Princes Street, Edinburgh, and Messrs. Williams & Norgate, 14, Henrietta Street, Covent Garden, London
Roy. Soc. N. S. Wales, Journ. and Proc.	Journal and Proceedings of the Royal Society of New South Wales	——	5, Elizabeth Street, Sydney, New South Wales
Roy. Soc., Phil. Trans.	Philosophical Transactions of the Royal Society of London	Varies for separate papers, from 1s.	Dulau & Co., 37, Soho Square, London, W.
Roy. Soc., Proc.	Proceedings of the Royal Society of London [Queensland	Varies for separate parts, from 1s. 6d.	Dulau & Co., 37, Soho Square, London, W.
*Roy. Soc., Queensland, Proc.	Proceedings of the Royal Society of	——	Pole & Co., 95, Elizabeth Street, Brisbane
Roy. Soc. Victoria, Proc.	Proceedings of the Royal Society of Victoria	——	Published by the Society, Melbourne London Agents: Williams & Norgate, 14, Henrietta Street, Covent Garden, W.C.

These publications can be obtained from Messrs. Williams and Norgate, 14, Henrietta Street, W.C.

LIST OF JOURNALS—*continued.*

ABBREVIATION.	FULL TITLE.	PRICE.	PUBLISHERS, OR AGENTS.
Schweizerische Blätter für Elektrotechnik	Schweizerische Blätter für Elektrotechnik, Berne	8 francs per annum	Place de l'Ours 29, Berne
Science	Science	Single copy, 15 cents.....	Macmillan & Co.,66, Fifth Avenue,New York
Scientific American	Scientific American	Single copy, 8 cents; 16s. 5d. per annum, post free	361, Broadway, New York
Scientific Australian	Scientific Australian.....	2s. 6d. per annum, post free	Turner & Henderson, 16–18, Hunter Street, Adelaide
Soc. Arts, Journ.	Journal of the Society of Arts	Single copy, 6d.	G. Bell & Sons, York Street, Covent Garden, W.C.
Soc. Belge Élect., Bull.	Bulletin de la Société Belge d'Électriciens	Single copy, 2 francs; 20 frs. per ann., post free	54, Rue Froissart, Brussels
Soc. Chem. Ind., Journ.....	Journal of the Society of Chemical Industry	30s. per annum	Published by the Society, 9, Bridge Street, Westminster, S.W.
Soc. d'Encouragement. Rev. de Metallurgie	see Bull. Soc. d'Encouragement	——	——
Soc. Franç. Phys., Bull	Bulletin de la Société Française de Physique	——	Published by the Society, 44, Rue de Rennes, Paris
Soc. Franç. Phys., Séances	Séances de la Société Française de Physique	——	Published by the Society, 44, Rue de Rennes, Paris
Soc. Imp. Nat. Moscou, Bull.	Bulletin de la Société Impériale des Naturalistes de Moscou	——	J. N. Kouchnereff & Co., Pimenowskaia, Moscou
Soc. Int. Élect., Bull.	Bulletin de la Société Internationale des Electriciens	Single copy, 2.50 francs; 27 francs per annum	Gauthier-Villars, Quai des Grands-Augustins 55, Paris
Street Rly. Journ.	Street Railway Journal	Single copy, 50 cents; $6 per annum, post free	A. C. Shaw, Hastings House, Norfolk Street, Strand, W.C.
Street Rly. Rev.	Street Railway Review	Single copy, 30 cents; $4 per annum	Windsor and Kenfield Pub. Co., Monon Bldg., Chicago, and 82, Fleet Street, E.C.
Technology Quarterly	The Technology Quarterly and Proceedings of the Society of Arts (Boston)	$3 per annum.....	Published by the Society of Arts of the Massachusetts Institute of Technology, Boston, Mass
Tech. Versuch., Berlin, Mitth.....	Mitteilungen aus den Königlichen Technischen Versuchsanstalten zu Berlin	12 marks per annum.....	J. Springer, Verlagsbuchhandlung, Monbijouplatz, 3, Berlin, N.

These publications can be obtained from Messrs. WILLIAMS and NORGATE, 14, Henrietta Street, W.C.

Abbreviation.	Full Title.	Price.	Publishers, or Agents.
Terrestrial Magnetism	Terrestrial Magnetism and Atmospheric Electricity	Single copy, 75 cents; $2.75 per annum	Johns Hopkins Press, Baltimore, U.S.A.
Tram. Rly. World	Tramway and Railway World	Single copy, 1s. post free	Amberley House, Norfolk Street, W.C.
U.S. Weather Bureau, Bull.	Bulletin of the United States Weather Bureau	——	Published by the U.S. Weather Bureau, Washington
*Vid.-Selsk. Forh., Christiania	Christiania Videnskabs, Selskabs, Förhandlingar	——	J. Dybwad, Christiania
West. Electn.	Western Electrican (Chicago)	Single copy, 10 cents; $3 per annum	510, Marquette Buildings, Chicago, and 44, Fleet Street, London, E.C.
Western Soc. Engin., Journ.	Journal of the Western Society of Engineers	$2 per volume of six numbers	Published by the Society, 1734–41, Monadnock Block, Chicago
Zeitschr. Analyt. Chemie	Zeitschrift für Analytische Chemie	18 marks per annum	C. W. Kreidel, Wiesbaden
Zeitschr. Angew. Chemie	Zeitschrift für Angewandte Chemie	20 marks per annum	J. Springer, Berlin, N.
Zeitschr. Anorg. Chem.	Zeitschrift für Anorganische Chemie	Single copy, 3 marks	Leopold Vors, Leipzig
Zeitschr. Elektrochem.	Zeitschrift für Elektrochemie	4 marks per quarter	W. Knapp, Halle a. S., Germany
Zeitschr. Elektrotechn., Wien	Zeitschrift für Elektrotechnik (Wien)	30 fr. per ann., post free	Nibelungengasse 7, Vienna
Zeitschr. Instrumentenk.	Zeitschrift für Instrumentenkunde	20 marks per annum	J. Springer, 24, Monbijouplatz 3, Berlin
Zeitschr. Instrumentenk., Beib.	Beiblatt zur Zeitschrift für Instrumentenkunde		
Zeitschr. Phys. Chem.	Zeitschrift für Physikalische Chemie	Single copy about 4s. 3d.	W. Engelmann, Leipzig
Zeitschr. Vereines Deutsch. Ing.	Zeitschrift des Vereines Deutscher Ingenieure	Single copy, 1 mark 40 pfg.; 32 marks per annum, post free	J. Springer, Monbijouplatz 3, Berlin
Zeitschr. Wiss. Phot.	Zeitschrift für Wissenschaftliche Photographie, Photophysik, und Photochemie	——	——

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ERRATA.

Section A.—Physics.

[Issued also on a separate slip, spaced for cutting up and pasting in the bound Volume.]

Abstract No. 194, line 2 : *for* pp. 22–24, *read* pp. 222–224.

Abstract No. 325, line 2 : *for* Oxine, *read* Oxime.

Abstract No. 365, line 1 : *for* Sulphates, *read* Sulphate.

Abstract No. 433, line 2 : *for* 42, *read* 43.

Abstract No. 511, line 1 : *for* Walmsley, *read* Wamsley.

Abstract No. 530, line 3 : *for* Griefswald, *read* Greifswald.

Abstract No. 748, line 2 from end : *for* Boisbandran, *read* Boisbaudran.

Abstract No. 826, line 1 : *for* L. Ariès, *read* E. Ariès.

Abstract No. 867, end line : *for* Roux, *read* Le Roux.

Abstract No. 923, line 2 : *for* Jan., 1904, *read* Dec., 1903.

Abstract No. 925, line 3 : *for* Jan., 1904, *read* Dec., 1903.

Abstract No. 926, line 3 : *for* Jan., 1904, *read* Dec., 1903.

Abstract No. 927, line 2 : *for* Jan., 1904, *read* Dec., 1903.

Abstract No. 957, p. 284, line 5 : *for* homographic, *read* such that the ratios between the distances of the parts of the system remain unchanged.

Abstract No. 1054, line 2 from end : *for* Huyghen's, *read* Huyghens'.

Abstract No. 1089, line 1 : *for* Barium Constants, *read* Barium Compounds.

Abstract No. 1242, line 6 : *for* increased, *read* decreased.

Abstract No. 1567, line 2 : *for* pp. 139–160, *read* pp. 129–160.

Abstract No. 1793, line 1 : *for* Sandino, *read* Saudino.

Abstract No. 1991, line 5 : $\partial X/\partial y - \partial V/\partial x$ is correct. (In some copies is printed $dX/dy - dV/dx$.)

Abstract No. 2010, line 2 : *for* Phys. Soc. Proc. 19. pp. 586–595, 1904, *read* Phys. Soc. Proc. 19. pp. 160–170 ; Discussion, pp. 170–172, July, 1904.

Abstract No. 2012, line 2 : *for* Phys. Soc. Proc. 19. pp. 595–604, 1904, *read* Phys. Soc. Proc. 19. pp. 173–183 ; Discussion, pp. 183–184, July, 1904.

Abstract No. 2271, line 1 : *for* G. Tissot, *read* C. Tissot.

Abstract No. 2348, line 3 : *for* pp. 358–362 ; Discussion, pp. 362–363, *read* pp. 358–359 ; Discussion, p. 359.

Abstract No. 2373, line 5 : *for* G. Adolf, *read* G. Adolph.

Abstract No. 2556, line 1 : *for* Thomson, *read* J. J. Thomson.

Abstract No. 2879, line 2 : *for* Lanwartz, *read* Lauwartz.

Abstract No. 3062, line 3 and p. 926, lines 3, 8, and 11 : *for* Pickhardt, *read* v. Pickhardt.

Abstract No. 3065, p. 927, line 9 : *for* Knoevenhagel, *read* Knoevenagel.

Abstract No. 3301, p. 993, line 9 : *for* μk, *read* of k.

Abstract No. 3312, line 1 : *for* O- and P-dinitrobenzene, *read* *o*- and *p*-Dinitrobenzene ; line 8 : *for* nitrile, *read* nitrite.

Abstract No. 3314, line 5 : *for* $O-C_6H_4(NO_2)_2$ [twice], *read* o-$C_6H_4(NO_2)_2$.